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United States
Department of
Agriculture

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Soil
Conservation
Service

Portland,
Oregon



STA/STA
**Water Supply Outlook
for Oregon**
as of MAY 1, 1983



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

**COVER PHOTO: FRESH POWDER SNOW ON ELEPHANT MOUNTAIN, NEAR THE
WEST FORK OF HYALITE CREEK, IN MONTANA.**

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



★GPO 693-033

WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

May 1, 1983

Issued by

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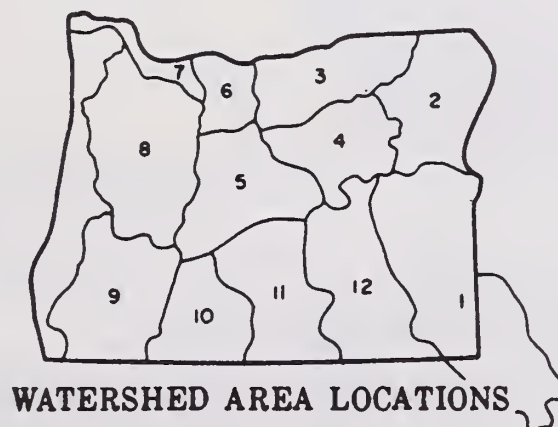
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WATER SUPPLY OUTLOOK AND SUMMARY

FOR OREGON

May 1, 1983

* Water supplies will be above to much above average for most of the state *
* this summer. The exception to this is the Willamette Valley, the Umpqua *
* River area and Umatilla County where streamflow will be below to near *
* normal. The snowpack is generally excellent east of the Cascades, while *
* west of the Cascades it ranges from poor to excellent. Precipitation *
* during April was near average over most of Oregon except in the far *
* eastern counties where it was much above average. Reservoir storage *
* continues to be excellent throughout the state. *

SNOW COVER

The mountain snow cover is much above average from the crest of the Cascades eastward and in the Rogue River watershed. Several new record maximums were established in the southern portion of the state and the rest of the stations in the area are reporting near record amounts of snow. Temperatures have been 1 to 3 degrees below normal over most of the state which helped the snowpack to remain high for this time of year.

PRECIPITATION

April precipitation was generally near average throughout the state. The Mt. Hood area only received half the normal amount, while Malheur County received twice the normal April precipitation. Lake and Harney Counties had 130% of average precipitation during the month. For the October-April season the precipitation amounts have been much above normal for the southern tier of counties and above normal for the rest of the state except in Morrow and Gilliam Counties where it has been near normal.

RESERVOIR STORAGE

Reservoir storage is excellent throughout the state. Most reservoirs are already full and the others are nearly full. Of 26 irrigation reservoirs in the state, the current storage is 2,934,200 acre feet which is 93 percent of usable capacity.

STREAMFLOW

Streamflow for the spring and summer season is forecast to be above to much above normal for most of the state this year. The exception to this is the Willamette Valley with below normal streamflow and the Umpqua River with near normal flows.

Forecasts of representative Oregon streamflow are as follows:

<u>STREAM</u>	<u>PERIOD</u>	<u>% OF AVERAGE</u>
Owyhee net Inflow	May - July	229
Grande Ronde @ LaGrande	May - July	75
Umatilla @ Pendleton	May - July	68
Deschutes @ Benham Falls	May - July	120
Willamette, Mid. Fork near Oakridge	May - July	110
Rogue @ Raygold	May - July	120
Upper Klamath Lake net Inflow	May - July	165
Silvies near Burns	May - July	150

Malheur Lake in Harney County is expected to reach the highest levels in recent history. This is causing problems for farmers and ranchers around the lake with some farmsteads being abandoned.

These forecasts assume normal weather conditions will occur throughout the forecast period.

The forecasts in this bulletin are a result of a coordinated activity between the Soil Conservation Service and National Weather Service as an effort to provide the best possible service to the water user.

WATER SUPPLY OUTLOOK OWYHEE, MALHEUR WATERSHEDS OREGON

GENERAL OUTLOOK

Water supplies are forecast to be excellent this summer in Malheur County. The water content of the mountain snowpack is still very high. Precipitation for April was twice normal and for the winter season it has been $1\frac{1}{2}$ times normal. Reservoir storage is excellent with most reservoirs full and the others nearly full. The Owyhee River should recede about 3 weeks later than usual this year.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS		THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET		
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c	
Bully Creek at Warmsprings	95	754	March-May		12.6 b	
Malheur near Drewsey	65	180	May-July		36	
	67	180	May-Sept.		37	
Malheur, North Fork at Beulah	63	162	May-July		39	
	69	157	May-Sept.		44	
Owyhee Reservoir net Inflow	452	229	May-July		197	
	493	220	May-Sept.		224	
Owhee at Rome	414	205	May-July		204	
Succor Creek near Jordan Valley	11.3	221	May-July		5.1 b	

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	2000	June 2	May 14
	1000	June 16	May 28
	500	July 1	June 11

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Beulah Reservoir	60.0	59.6	59.8	50.3
Bully Creek	30.0	30.0	30.0	24.0
Owyhee	715.0	667.4	696.9	618.4
Warm Springs	191.0	180.6	182.7	147.5

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Jordan Creek	1	143	323
Malheur River	3	102	183
Owyhee River	1	143	323

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

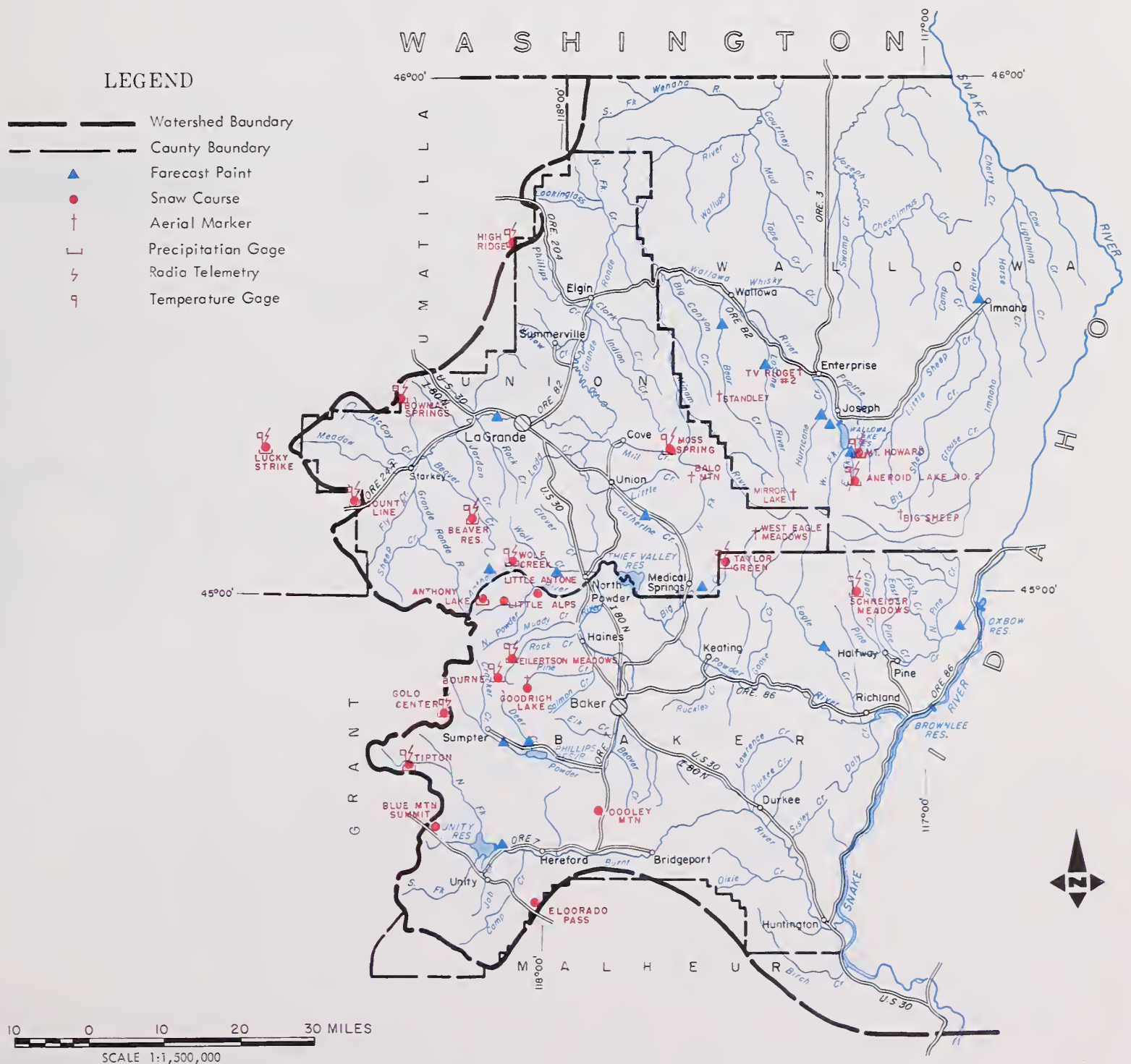
WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies will be above to much above normal this summer for most of the area. The Grande Ronde River is the only river in the area that is forecast to be below average. The mountain snowpack is much above normal except in the Grande Ronde basin where it is below average. Precipitation for April and for the winter season has been about 120 percent of normal. Reservoir storage is excellent with all reservoirs full or nearly full except for Wallowa Lake which they are keeping at a lower level to catch the runoff from the late melting snow.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year Average ^c
Anthony Creek blw. North Fork nr. North Powder	20	149	May-July	13.7
Bear near Wallowa	67	113	May-Sept.	59
Big Creek blw. Burn Creek near Medical Spring	8.1	124	May-July	6.5
Burnt near Hereford	25	148	May-July	16.8
	27	148	May-Sept.	18.3
Catherine near Union	66	122	May-Sept.	54
Deer Creek above Phillips Res. near Sumpter	16.5	145	May-July	11.4 ^b
Eagle Creek above Skull Creek	197	132	May-July	149
	214	130	May-Sept.	165
Grande Ronde at La Grande	72	75	May-July	96
	75	75	May-Sept.	100
Hurricane near Joseph	50	113	May-Sept.	44
Imnaha at Imnaha	352	137	May-Sept.	256
Lostine near Lostine	134	114	May-Sept.	117
Pine Creek near Oxbow	208	132	May-July	157 ^b
Powder near Sumpter	56	130	May-July	43
	59	135	May-Sept.	44
Wallowa, East Fork near Joseph	10.5	123	May-July	8.5
	13.4	124	May-Sept.	10.8
Wallowa at Joseph	84	122	May-July	69
Wolf Creek Reservoir net Inflow	12.2	145	May-June	8.4

RESERVOIR STORAGE (Thousand Ac. Ft.)

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Phillips Lake	73.5	70.5	73.1	59.1
Thief Valley	17.4	17.4	18.0	17.4
Unity	25.2	23.8	25.4	24.1
Wallowa Lake	37.5	24.8	17.1	30.9
Wolf Creek	10.4	10.3	8.0	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Burnt River	4	96	205
Grande Ronde River above La Grande	2	73	76
Powder River	5	109	173
Wallowa, Imnaha, Catherine Creek	6	98	136

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Eagle Cr.abv.Skull Cr.	225	Aug. 9	July 25
	160	Aug. 20	Aug. 5
			Avg.value
Catherine Creek near Union	45	Aug. 1	49
	100	July 16	July 9
	50	Aug. 2	July 28
Powder near Sumpter	100	July 2	June 25
	20	July 26	July 22
Deer Cr. abv. Phillips Res. near Sumpter	40	June 22	June 17
	10	July 13	July 6

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

GENERAL OUTLOOK

10 0 10 20 30 MILES

SCALE 1:1,500,000



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Butter Creek near Pine City	4.2	120	May-July		3.5
Couse Creek near Milton Freewater	1.6	92	May-July		1.7 b
McKay near Pilot Rock	6.0	82	May-Sept.		7.3
Pine Creek near Weston	0.8	92	May-July		0.9 b
Rhea Creek near Heppner	1.7	91	May-July		1.9
Rock Creek above Cayuse Canyon near Condon	2.6	110	May-July		2.4 b
Umatilla near Gibbon	35	82	May-July		43
	40	82	May-Sept.		49
Umatilla at Pendleton	50	68	May-July		74
Walla Walla, South Fork near Milton	50	93	May-Sept.		54
Willow Creek at Heppner	3.0	112	May-July		2.7

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 13	May 17
So. Fork Walla Walla	200	June 2	June 9
	103	Aug-Sept Min.Flow	Avg.value 105

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cold Springs	50.0	49.2	50.1	47.8
McKay	73.8	67.1	67.5	55.0

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
McKay Creek	2	50	88
Umatilla River	2	66	88
Walla Walla River	2	68	87

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK UPPER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

Water supplies are forecast to be above average for the John Day basin. The mountain snowpack is 170 percent of the May 1 average. The April precipitation was only 72 percent of normal but for the winter season it is 110 percent. For John Day at Service Creek the April flow was 140 percent of normal.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Camas Creek near Ukiah	14.9	91	May-July		16.4
John Day, Middle Fork at Ritter	90.0	125	May-July		72
	95.0	125	May-Sept.		76
John Day, North Fork at Monument	426	121	May-July		352
	444	121	May-Sept.		367
Mountain Creek near Mitchell	3.6	164	May-July		1.9 ^b
Strawberry near Prairie City	8.0	117	May-July		6.8
	8.5	115	May-Sept.		7.4

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
John Day at Service	276	Aug. 1	Avg. value 212

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
John Day, North Fork	7	87	164
John Day above Dayville	4	97	180

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS

OREGON

GENERAL OUTLOOK

The Crooked and Upper Deschutes watersheds will have above to much above average water supplies this summer. The mountain snowpack is still above normal. The precipitation was near average for April. For the winter season it has been 126 percent of average. Reservoir storage is excellent with most reservoirs full. Streamflow for the Deschutes at Moody was 161% of the April average.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Beaver Creek near Paulina	8.0	163	May-July		4.9
	8.4	167	May-Sept.		5.0
Crane Prairie Reservoir total Inflow	94	147	May-July		64
	140	132	May-Sept.		106
Crescent at Crescent Lake	19.5	126	May-July		15.5
	24.4	123	May-Sept.		19.8
Crooked River near Prineville	57	164	May-July		35
Crooked R.,Nor. Fk. blw. Lookout Cr. nr Paulina	9.7	225	May-July		4.3b
Deschutes below Bend	191	107	Aug.-Sept.		178
Deschutes at Benham Falls	349	120	May-July		291
	570	118	May-Sept.		483
Deschutes below Snow Creek	85	149	May-Sept.		57
Deschutes, Little near La Pine	80	142	May-July		56
	92	138	May-Sept.		67
Ochoco Reservoir net Inflow	24	286	May-Sept.		8.4
Squaw near Sisters	54	121	May-Sept.		45
Tumalo near Bend	52	129	May-Sept.		41

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	477 295 Peak	Peak Oct. 31 June 2	
Crooked R. near Post	100	June 19	June 1
Deschutes below Bend	1500	Oct. 1	July 19
Little Deschutes near La Pine	400 200	June 26 July 27	June 7 July 8
Squaw Cr. nr. Sisters	100	Sept. 5	Aug. 16
Tumalo Cr. near Bend	235 207 150 71	July 26 July 28 Aug. 10 Sept. 14	June 23 June 25 July 5 Aug. 7

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Crane Prairie	55.3	55.0	44.6	45.8
Crescent Lake	86.9	74.6	37.6	66.5
Ochoco	47.5	40.8	42.1	37.8
Prineville	153.0	153.0	155.1	145.0
Wickiup	200.0	200.0	191.5	189.4

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Crooked, Ochoco	-	--	--
Deschutes abv. Wickiup	2	89	122
Little Deschutes	4	113	151
Tumalo & Squaw Crs.	3	93	138

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies will be near normal for Wasco and Hood River Counties. The White River is forecast to flow at 88 percent of normal this summer. The mountain snowpack is 74 percent of normal. April precipitation was only half the normal amount but for the winter season it is 107 percent of normal. Clear Lake Reservoir is currently at 130 percent of the May 1 normal.

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SCALE 1:1,000,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Hood River at Tucker Bridge near Hood River	157	93	May-July		169
	201	93	May-Sept.		216
Hood River, West Fork near Dee	85	98	May-July		87
	107	98	May-Sept.		109
White below Tygh Valley	69	85	May-July		81
	84	88	May-Sept.		96

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	*32	July 15-31	**39
*Average cfs forecast to flow for this two-week period.			
**Average cfs for period of record.			
White below Tygh Valley	200		July 1
	136		Avg. value 145

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake (Wasco)	11.9	9.0	5.3	6.7

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Hood River	3	65	74
Mile Creeks	-	--	--
White River	3	65	74

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies on the lower Columbia will be near normal and on the Sandy they will be below normal. Water supplies in Washington will generally be near normal. The snowpack in British Columbia is 90 percent of average. In Idaho the snowpack ranges from below normal in the north to much above normal in the south. The Okanogan River in Washington has an above average snowpack. April precipitation has been much above normal on the Kootenai and Okanogan Rivers, and in northeastern Washington. British Columbia had near normal precipitation. Southern Idaho had above normal precipitation while in the central part of the state it was much below normal. In northern Idaho it improved to about 80 percent. Temperatures were generally 1 to 2 degrees above normal in Washington and British Columbia while in Idaho they were 1 to 4 degrees below normal. In Oregon the temperatures were 1 to 3 degrees above normal on the west side of the Cascades and 1 to 3 degrees below normal on the east side.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Sandy River	2	68	80

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year Average ^c
Columbia at The Dalles	76,100	100	May-July	76,010
Sandy River near Marmot	92,100	101	May-Sept.	90,980
	168	73	May-July	230
	219	77	May-Sept.	285

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^d (1,000 A.F.)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT.	APR - JUNE	MAY - JUNE		
1963	87,860	58,499	47,812	437	June 18
1964	110,422	73,512	63,670	662	June 18
1965	114,222	80,098	62,467	520	June 9
1966	87,386	58,250	45,962	396	June 12
1967	109,319	74,378	66,452	622	June 10
1968	89,102	55,593	47,994	404	June 13
1969	112,377	85,742	63,899	515	May 15
1970	88,243	62,993	55,227	425	May 28
1971	126,898	91,781	76,453	557	May 13
1972	135,500	97,041	81,451	619	June 20
1973	65,549	43,765	36,565	221	December 5
1974	139,501	99,035	78,946	588	June 20
1975	108,906	73,018	62,861	422	May 17
1976	122,771	79,084	62,554	418	May 14
1977	54,108	35,505	28,394	213	January 25
1963-77 Avg.	103,478	71,220	58,714	468	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clackamas at Estacada	343	73	May-July		470
	450	77	May-Sept.		584
Clackamas above Three Lynx	218	60	May-July		364
	304	66	May-Sept.		460
McKenzie at McKenzie Bridge	301	89	May-July		338
	450	93	May-Sept.		484
McKenzie near Vida	566	77	May-July		735
	776	80	May-Sept.		970
McKenzie, South Fork near Rainbow	107	74	May-July		144
	136	79	May-Sept.		171
Mohawk River near Springfield	30	95	May-July		32
Oak Gorve Fork above Power Intake	73	73	May-July		100
	108	78	May-Sept.		138
Row near Dorena	44	85	May-July		52
	48	85	May-Sept.		57
Santiam, North at Mehama	390	77	May-July		506
	510	83	May-Sept.		614
Santiam, South at Waterloo	249	77	May-July		323
	304	83	May-Sept.		366
Scoggins Creek near Gaston	5.7	111	May-July		5.1
Thomas Creek near Scio	40	103	May-July		39
Willamette, Coast Fork near London	15.0	109	May-July		13.8
Willamette, Middle Fork below North Fork	518	110	May-July		471
near Oakridge	626	110	May-Sept.		569
Willamette, No. Fork of Mid Fork near Oakridge	138	110	May-July		125
	161	110	May-Sept.		146
Willamette at Salem	2,273	89	May-July		2,554
	2,825	93	May-Sept.		3,038

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Clackamas River	2	1	1
McKenzie River	3	47	60
Santiam River	4	50	66
Willamette, Mid Fork	4	90	115

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Blue River	85.6*	73.2	70.6	74.9
Cottage Grove	30.0*	25.1	21.8	23.4
Cougar	155.2*	134.8	131.7	109.2
Detroit	299.9*	274.4	259.6	231.2
Dorena	70.5*	55.8	52.5	55.7
Fall Creek	115.0*	102.6	95.6	95.2
Fern Ridge	94.2*	94.0	93.6	83.9
Foster	30.0*	0.9	1.3	16.6
Green Peter	270.0*	221.8	227.1	209.1
Hills Creek	200.0*	173.8	168.0	146.3
Lookout Point	337.2*	294.6	287.7	227.4
Timothy Lake	61.7	59.7	53.6	60.4
Henry Hagg Lake	53	53.0	53.1	--
*Multiple purpose reservoir--space reserved primarily for flood runoff.				

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

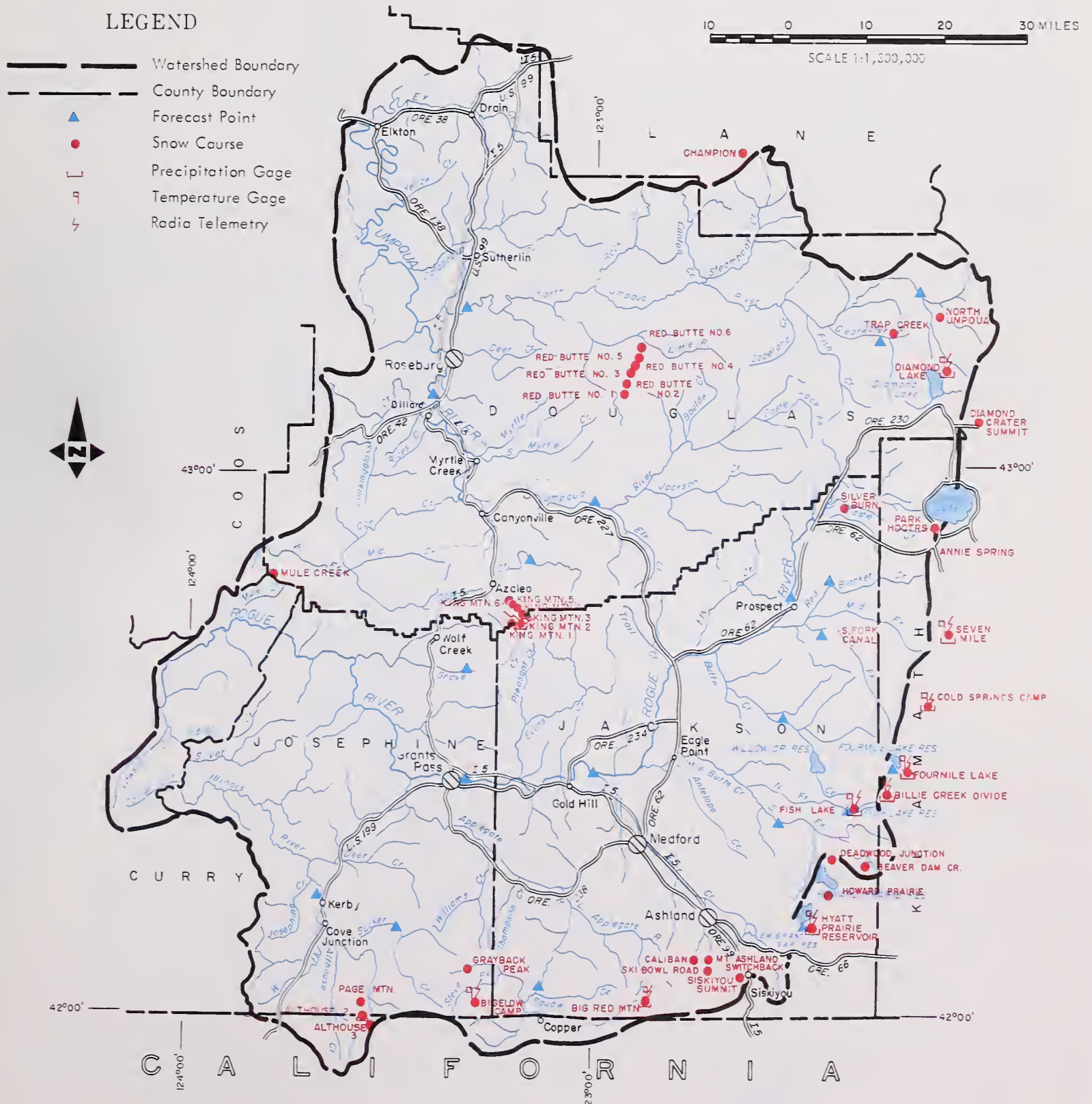
WATER SUPPLY OUTLOOK

ROGUE, UMPQUA, WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies will be near normal on the Umpqua watershed, above normal on the Rogue, and much above normal in the very southern part of the area. The snowpack is much above normal except for the Umpqua where it is 71 percent of normal. April precipitation was 108 percent of average and for the winter season it was 120 percent. April flow on the Umpqua was 149 percent of normal and on the Rogue it was 139 percent. Reservoir storage is very good with most reservoirs full or nearly full.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Applegate near Copper	154	190	May-July		81
	167	190	May-Sept.		88
Big Butte Creek, So. Fork near Butte Falls	40	121	May-Sept.		33
Clearwater above Trap Creek	61	103	May-Sept.		59
Cow Creek near Azalea	9.7	117	May-July		8.3
Fourmile Lake net Inflow	7.4	225	May-Sept.		2.9
Grave Creek at Pease Bridge near Placer	3.9	126	May-July		3.1
Hyatt Reservoir net Inflow	3.4	124	May-July		2.7
Illinois River near Kerby	124	150	May-July		83
	135	150	May-Sept.		90
Little Butte, N.Fk. at Fish Lake near Lake Cr.	16.7	140	May-Sept.		11.9
Little Butte, S. Fk. near Lake Creek	26	142	May-July		18.5
	30	142	May-Sept.		21
Red Blanket Creek near Prospect	35	129	May-July		27
Rogue above Prospect	228	120	May-July		190
	296	120	May-Sept.		247
Rogue, South Fork near Prospect	58	120	May-July		48
	71	120	May-Sept.		59
Rogue at Raygold near Central Point	614	120	May-July		512
	810	120	May-Sept.		675
Rogue at Grants Pass	862	124	May-Sept.		647
Sucker Cr. Blw. Little Grayback near Holland	59	160	May-July		37
Umpqua, No.blw. Lemolo Lake nr. Toketee Falls	131	91	May-Sept.		144
Umpqua, No. at Winchester	466	95	May-July		490
Umpqua, South near Brockway	175	95	May-July		184
Umpqua, South at Tiller	108	104	May-July		104

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Cow Creek near Azalea	20	July 17	July 4
	10	Sept. 1	Aug. 15
Little Butte Creek, South Fork	100	June 10	May 15
South Umpqua near Brockway	90	Aug. 19	July 30
South Umpqua at Tiller	140	July 12	July 10
	90	Aug. 1	July 30
	60	Aug. 30	Aug. 27

RESERVOIR STORAGE (Thousand Ac. Ft.)

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Applegate	75.2	62.9	74.3	--
Emigrant Lake	39.0	38.4	39.0	37.1
Fish Lake	8.0	7.2	5.2	6.4
Fourmile Lake	16.1	11.3	6.5	11.5
Howard Prairie	60.0	60.0	60.6	52.8
Hyatt Prairie	16.1	16.1	16.2	14.6
Lost Creek	315.0	159.0	281.3	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Applegate	-	--	--
Bear Creek	1	153	164
Butte Creek	4	214	196
Illinois River	-	--	--
North Umpqua	3	56	71
Rogue River	3	114	148
Mt. Ashland	3	147	169

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clear Lake Reservoir Inflow	33	190	May-Sept.		17.5
Gerber Reservoir Inflow	11.7	216	May-Sept.		5.4
Sprague near Chiloquin	300	180	May-Sept.		167
Upper Klamath Lake net Inflow	564	165	May-Sept.		342
Williamson below Sprague River	428	150	May-Sept.		285

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake	440.2	440.2	355.0	294.2
Gerber	94.0	94.0	96.2	76.8
Upper Klamath Lake	584.0	483.8	466.9	467.7

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Lost River	1	606	429
Sprague River	2	138	175
Upper Klamath	5	138	175
Williamson River	3	137	155

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LAKE COUNTY, GOOSE LAKE WATERSHEDS

OREGON

GENERAL OUTLOOK

Lake County will have excellent water supplies this summer. The mountain snowpack, which is near record high levels, ranges from 133 percent of average to 468 percent. Precipitation for April and the winter season as a whole has been about 130 percent of normal. All major reservoirs in the area are full. Streams will recede about one month late this year.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS		THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET		
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c	
Bridge Creek near Spahr Ranch near Silver Lake	5.6	185	May-July		3.0	
Chewaucan near Paisley	96	166	May-July		58	
	101	163	May-Sept.		62	
Cottonwood Creek near Lakeview	11.0	172	May-July		6.4	
Deep above Adel	101	220	May-July		46	
	106	220	May-Sept.		48	
Drews Reservoir net Inflow	20	190	May-July		10.6	
Honey Creek near Plush	26	210	May-July		12.4	
	27	215	May-Sept.		12.6	
Silver Creek near Silver Lake	15.0	186	May-July		8.1	
Twentymile near Adel	25	220	May-Sept.		11.4	

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Deep Cr. above Adel	100	June 22	June 21
Honey Cr. near Plush	100	June 30	May 15
	50	July 15	May 30
Twentymile near Adel	50	July 11	June 2
	10	Aug. 12	July 3

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cottonwood	8.7	8.7	8.7	6.2
Drews	63.0	62.5	63.5	59.0
Thompson Valley	19.5	18.9	19.5	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

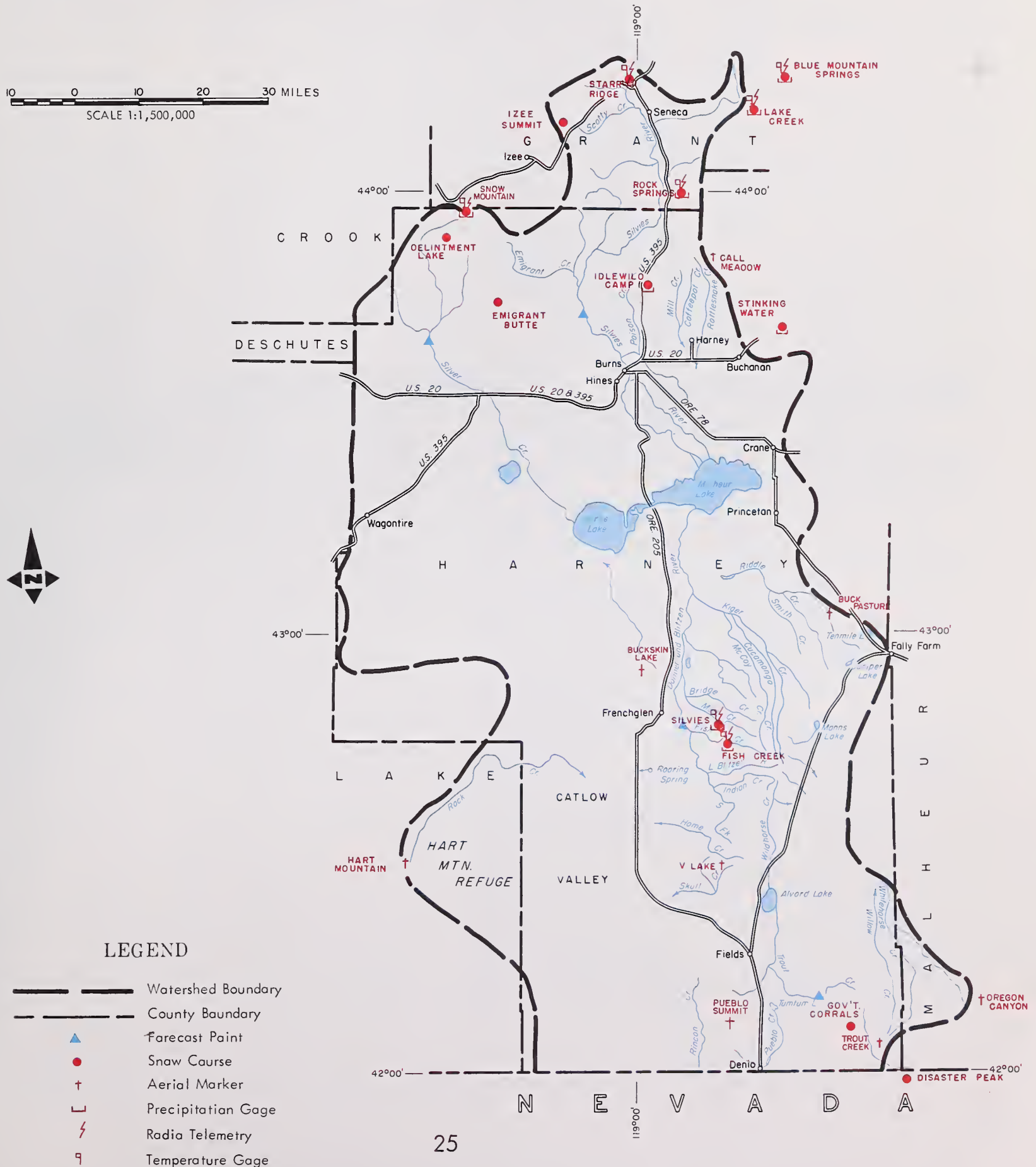
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Chewaucan River	2	500	150
Deep Creek	1	309	468
Drew Creek	2	794	397
Honey Creek	1	309	468
Silver Creek	1	100	133
Twentymile Creek	-	--	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

GENERAL OUTLOOK

Excellent water supplies are forecast for Harney County this year. Much snow remains in the mountains, so a late runoff is expected. Precipitation for April was 129 percent of normal and for the winter season it is 139 percent. Streams are forecast to recede about one month later than normal this summer.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Donner und Blitzen near Frenchglen	79	193	May-July		41
	87	189	May-Sept.		46
Silver near Riley	13.6	230	May-July		5.9
Silvies River near Burns	57	150	May-July		38
	60	150	May-Sept.		40
Trout Creek near Denio	15.0	230	May-July		6.5
	16.1	230	May-Sept.		7.0

FORECAST DATE of LOW FLOW VALUES

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value	RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
						Last Year	Average ^c
Silvies near Burns	400	May 20	May 5	Donner und Blitzen	-	--	--
	200	June 19	May 21				
	100	July 2	June 9				
	50	Aug. 11	June 23				
Donner und Blitzen	200	July 20	June 15	Silver Creek	-	--	--
	100	Aug. 11	July 5				
				Silvies River	4	82	156
				Trout Creek	-	--	--
Malheur Lake at Break in Cole Island Dike near Voltage	<u>GAGE HEIGHT</u>	<u>SURFACE ACRES</u>	<u>AVG. SURFACE ACRES</u>				
	July 1	4097.24	125,000				
	August 1	4096.77	116,000				

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^C
OWYHEE MALHEUR WATERSHEDS AREA 1					
Antelope Ridge (Ida.)		e			
Battle Creek (Ida.) *		e			
Bear Creek (Nev.)		e			
Bend (Nev.)		e			
Blue Mountain Springs	4/28	47	20.6	20.4	11.1
Blue Mtn. Spgs. Plw. (T)	No Report				
Blue Mtn. Spgs. Plw. (S)	4/28	46	18.9	23.5	6.8b
Blue Mtn. Spgs. Plw. (M)	4/28	--	22.2	24.4	9.0b
Boulder Creek *		e			
Buck Pature *		e			
Buckskin, Lower (Nev.)		e			
Buckskin, Upper (Nev.)		e			
Bull Basin (Ida.) *		e			
Bully Creek *		e			
Call Meadows *		e			
Columbia Basin (Nev.)		e			
Disaster Peak (Nev.)		e			
Eldorado Pass	4/29	0	0.0	0.0	--
Fawn Creek (Nev.)		e			
Fish Creek (Rev.)		e			
Fish Creek Pillow (T)	5/1	--	54.3	19.2	--
Fish Creek Pillow (S)		e			
Fish Creek Pillow (M)		e			
Flag Prairie *		e			
Fox Creek (Nev.)		e			
Fry Canyon (Nev.)		e			
Gold Creek (Nev.)		e			
Government Corrals		e			
Granite Peak (Nev.)		e			
Hyde Pasture (Ida.) *	5/3	0	0.0	--	--
Jack Creek, Lower (Nev.)		e			
Jack Creek, Upper (Nev.)		e			
Jack Peak (Nev.)		e			
Johnston Pond (Ida.) *		e			
Lake Creek R.S.	4/28	15	7.1	6.8	3.4b
Lake Creek R.S. Plw. (T)	4/28	--	9.9	8.9	--
Lake Creek R.S. Plw. (S)	4/28	17	7.8	8.5	--
Lake Creek R.S. Plw. (M)	4/28	--	9.1	8.2	--
Laurel Draw (Nev.)		e			
Lookout Butte *		e			
Louse Canyon *	5/3	23	9.2	--	--
Martin Creek (Nev.)		e			
Merritt Mountain (Nev.) *		e			
Midas (Nev.) *		e			
Mud Flat (Ida.)		e			
Oregon Canyon *		e			
Quinn Ridge (Nev.) *		e			
Red Canyon (Ida.) *	5/3	TR	0.1	--	--
Rock Springs	4/29	0	0.0	0.0	0.6
Rock Spgs. Plw. (T)	4/29	--	0.0	0.1	--
Rock Spgs. Plw. (S)	4/29	0	0.0	0.0	--
Rock Spgs. Plw. (M)	4/29	--	0.0	0.1	--
Rodeo Flat (Nev.)		e			
76 Creek (Nev.) *		e			
Silver City (Ida.) *	5/3	TR	0.1	--	--
Silver City (Ida.)	5/3	33	14.2	--	--
Silvies		e			
Silvies Pillow (T)	No Report				
Silvies Pillow (S)		e			
Silvies Pillow (M)		e			
South Mountain #2 (Ida.)		e			
South Mtn. #2 Plw. (T)		e			
Stag Mountain (Nev.) *		e			
Stinking Water	5/1	0	0.0	0.0	
Succor Creek (Ida.) *	5/3	17	6.8	--	--
Taylor Canyon (Nev.)		e			
Toe Jam (Nev.) *		e			
Tremewan Ranch (Nev.) *		e			
Trout Creek *		e			
"V" Lake *		e			
Vaught Ranch (Ida.) *		e			
War Eagle (Ida.) *	5/3	91	43.7	--	--

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
BURNT, POWDER, PINE, IMNAHA GRANDE RONDE WATERSHEDS AREA 2					
Aneroid Lake #2	4/27	106	45.4	47.6	36.5
Aneroid Lake #2 Plw. (T)	4/27	--	39.2	--	--
Aneroid Lake #2 Plw. (S)	4/27	106	43.5	44.5	--
Aneroid Lake #2 Plw. (M)	No Report				
Anthony Lake	4/28	86	36.7	40.8	30.8
Bald Mountain (OR) *	4/26	69	29.7	36.1	23.7b
Beaver Reservoir (Rev.)	4/27	24	8.2	11.2	10.2
Beaver Res. Pillow (T)	4/27	--	0.3	5.7	--
Beaver Res. Pillow (S)	4/27	6	1.5	6.2	--
Beaver Res. Pillow (M)	4/27	--	0.1	--	--
Big Sheep *	4/26	84	38.6	40.9	23.7
Blue Mtn.Summit (DISC.82)			4.1a		
Bourne	4/27	41	16.6	12.8	7.7b
Bourne Pillow (T)	4/27	--	26.5	23.2	--
Bourne Pillow (S)	4/27	53	21.4	20.0	--
Bourne Pillow (M)	4/27	--	25.3	22.4	--
County Line (Rev.)	4/27	0	0.0	0.0	0.6b
County Line Pillow (T)	4/27	--	0.0	0.7	--
County Line Pillow (S)	4/27	0	0.0	0.0	--
County Line Pillow (M)	4/27	--	0.0	0.1	--
Dooley Mountain (DISC.82)			8.2a		
Eilertson Meadows	4/27	34	12.8	11.7	4.6b
Eilertson Meadows Plw. (T)	4/27	--	13.8	10.1	--
Eilertson Meadows Plw. (S)	4/27	33	13.5	9.1	--
Eilertson Meadows Plw. (M)	4/27	--	12.9	9.8	--
Eldorado Pass	4/29	0	0.0	0.0	--
Gold Center	4/27	24	9.7	8.5	4.5b
Gold Center Pillow (T)	4/27	--	3.4	3.2	--
Gold Center Pillow (S)	4/27	8	3.1	2.8	--
Gold Center Pillow (M)	4/27	--	3.9	3.4	--
Goodrich Lake (DISC.82)			48.1a		
Little Alps	4/28	52	18.4	17.4	14.5
Little Antone (Alt.)	4/28	3	1.1	4.7	--
Lucky Strike	4/27	18	7.0	14.0	9.8
Lucky Strike Pillow (T)	4/27	--	3.9	9.8	--
Lucky Strike Pillow (S)	4/27	6	2.1	7.6	--
Lucky Strike Pillow (M)	4/27	--	2.1	9.0	--
Mirror Lake *	4/26	188	94.0	95.2	74.2b
Moss Spring	4/26	57	24.8	35.0	24.6
Moss Spring Pillow (T)	4/26	--	25.6	--	--
Moss Spring Pillow (S)	4/26	56	23.8	30.8	--
Moss Spring Pillow (M)	4/26	--	25.2	--	--
Mt. Howard Pillow (T)	No Report				
Mt. Howard Pillow (S)	4/26	65	27.0	29.0	--
Mt. Howard Pillow (M)	No Report				
Schneider Meadow	4/26	96	47.6	41.2	26.5
Schneider Meadow Plw. (T)	No Report				
Schneider Meadow Plw. (S)	4/26	95	48.3	40.0	--
Schneider Meadow Plw. (M)	No Report				
Standley *	4/26	119	53.6	41.8	35.7
Taylor Green	4/26	45	20.8	23.4	13.9b
Taylor Green Pillow (T)	4/26	--	28.4	--	--
Taylor Green Pillow (S)	4/26	57	26.0	27.5	--
Taylor Green Pillow (M)	4/26	--	26.1	--	--
Tipton	4/27	11	4.5	4.0	1.6b
Tipton Pillow (T)	4/27	--	15.6	--	--
Tipton Pillow (S)	4/27	33	11.1	13.8	--
Tipton Pillow (M)	4/27	--	16.2	--	--
TV Ridge *	4/26	72	32.4	32.0	23.9b
West Eagle Meadows *	4/26	86	39.6	40.5	--
Wolf Creek Pillow (T)	4/27	--	21.3	--	--
Wolf Creek Pillow (S)	4/27	44	17.6	18.9	--
Wolf Creek Pillow (M)	4/27	--	18.4	21.5	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

SNOW

SNOW	THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS AREA 3					
Arbuckle Mountain	4/27	7	3.0	5.1	2.6b
Arbuckle Mountain Plw. (T)	4/27	--	35.0	--	--
Arbuckle Mountain Plw. (S)	4/27	65	25.9	24.4	--
Arbuckle Mountain Plw. (M)	4/27	--	33.9	--	22.3b
Blue Mountain Camp(DISC.82)			4.1a		
Bowman Springs Plw. (T)	4/27	--	0.0	4.7	--
Bowman Springs Plw. (S)	4/27	0	0.0	3.1	--
Bowman Springs Plw. (M)	4/27	--	0.0	3.8	--
Butte Creek Summit	No Report				
Emigrant Springs	4/27	0	0.0	0.0	0.2
Emigrant Springs Plw. (T)	4/27	--	0.0	0.2	--
Emigrant Springs Plw. (S)	4/27	0	0.0	0.0	--
Emigrant Springs Plw. (M)	4/27	--	0.0	0.1	--
High Ridge Pillow (T)	5/2	--	29.9	--	--
High Ridge Pillow (S)	5/2	53	24.0	36.4	27.0
High Ridge Pillow (M)	5/2	--	27.5	40.0	--
Lucky Strike	4/27	18	7.0	14.0	7.8
Lucky Strike Pillow (T)	4/27	--	3.9	9.8	--
Lucky Strike Pillow (S)	4/27	6	2.1	7.6	--
Lucky Strike Pillow (M)	4/27	--	2.1	9.0	--
Madison Butte Pillow (T)	4/27	--	0.0	--	--
Madison Butte Pillow (S)	4/27	0	0.0	0.0	--
Madison Butte Pillow (M)	4/27	--	0.0	--	--
UPPER JOHN DAY WATERSHEDS AREA 4					
Anthony Lake	4/28	86	36.7	40.8	30.8
Arbuckle Mountain	4/27	7	3.0	5.1	2.6b
Arbuckle Mountain Plw. (T)	4/27	--	35.0	--	--
Arbuckle Mountain Plw. (S)	4/27	65	25.9	24.4	--
Arbuckle Mountain Plw. (M)	4/27	--	33.9	--	22.3b
Blue Mountain Springs	4/28	47	20.6	20.4	11.1
Blue Mtn. Spgs. Plw. (T)	No Report				
Blue Mtn. Spgs. Plw. (S)	4/28	46	18.9	23.5	6.8b
Blue Mtn. Spts. Plw. (M)	4/28	--	22.2	24.4	9.0b
Blue Mountain Sum.(DISC.82)			4.1a		
Butte Creek Summit	No Report				
Derr		e		--	--
Derr Pillow (T)	5/1	--	25.9	12.9	--
Derr Pillow (S)		e			
Derr Pillow (M)		e			
Gold Center	4/27	24	9.7	8.5	4.5b
Gold Center Plw. (T)	4/27	--	3.4	3.2	--
Gold Center Plw. (S)	4/27	8	3.1	2.8	--
Gold Center Plw. (M)	4/27	--	3.9	3.4	--
Izee Summit (DISC. 82)			2.2a		
Lucky Strike	4/27	18	7.0	14.0	7.8
Lucky Strike Pillow (T)	4/27	--	3.9	9.8	--
Lucky Strike Pillow (S)	4/27	6	2.1	7.6	--
Lucky Strike Pillow (M)	4/27	--	2.1	9.0	--
Marks Creek	No Report				
Ochoco Meadows		e		0.0	0.1
Ochoco Meadows Plw. (T)	5/1	--	12.8	--	--
Ochoco Meadows Plw. (S)		e			
Ochoco Meadows Plw. (M)		e			
Snow Mountain (DISC. 82)			18.0a		
Snow Mountain Plw. (T)	5/1	--	22.9	--	--
Snow Mountain Plw. (S)		e			
Snow Mountain Plw. (M)		e			
Starr Ridge	4/29	3	1.0	1.6	1.2
Starr Ridge Plw. (T)	4/29	--	0.0	0.0	--
Starr Ridge Plw. (S)	4/29	0	0.0	0.0	--
Starr Ridge Plw. (M)	4/29	--	0.0	--	--
Tipton	4/27	11	4.5	4.0	1.6b
Tipton Pillow (T)	4/27	--	15.6	--	--
Tipton Pillow (S)	4/27	33	11.1	13.8	--
Tipton Pillow (M)	4/27	--	16.2	--	--

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^C
UPPER DESCHUTES, CROOKED WATERSHEDS AREA 5					
Bald Peter	4/27	111	50.2	51.4	35.5b
Beaver Creek #1	4/28	20	8.2	--	--
Beaver Creek #2	4/28	0	0.0	--	--
Caldwell Ranch (DISC. 82)			7.5a		
Cascade Summit	4/29	67	31.2	36.5	27.4
Cascade Summit Plw. (T)	4/29	--	36.9	--	--
Cascade Summit Plw. (S)	4/29	80	36.3	43.2	--
Cascade Summit Plw. (M)	4/29	--	35.1	44.0	--
Chemult Alternate	4/28	21	9.2	0.2	1.8
Chemult Alt. Plw. (T)	4/28	--	5.4	--	--
Chemult Alt. Plw. (S)	4/28	17	6.5	--	--
Chemult Alt. Plw. (M)	4/28	--	4.0	--	--
Derr		e			
Derr Pillow (T)	5/1	--	25.9	12.9	--
Derr Pillow (S)		e			
Derr Pillow (M)		e			
Hogg Pass	4/27	86	39.5	51.1	42.4
Hogg Pass Pillow (T)	No Report				
Hogg Pass Pillow (S)	4/27	92	42.8	51.2	--
Hogg Pass Pillow (M)	No Report				
Hungry Flat	4/28	0	0.0	0.0	--
Irish-Taylor Pillow (T)	4/28	--	42.7	52.2	--
Irish-Taylor Pillow (S)	4/28	104	43.6	51.5	--
Irish-Taylor Pillow (M)	4/28	--	40.2	52.1	--
Lionshead *	4/28	48	21.6	19.8	--
Marks Creek	No Report			0.0	0.1
New Crescent Lake	4/27	33	13.9	13.6	6.2
New Crescent Lake Plw. (T)	4/27	--	11.9	9.8	--
New Crescent Lake Plw. (S)	4/27	30	11.6	9.6	--
New Crescent Lake Plw. (M)	4/27	--	11.2	10.3	--
New Dutchman Flat #2	5/2	132	67.5	73.6	55.9
Ochoco Meadows		e			
Ochoco Meadows Plw. (T)	5/1	--	12.8	--	--
Ochoco Meadows Plw. (S)		e			
Ochoco Meadows Plw. (M)		e			
Racing Creek	4/27	39	15.6	19.8	12.6b
Snow Mountain (DISC. 82)			18.0a		
Snow Mountain Plw. (T)	5/1	--	22.9	--	--
Snow Mountain Plw. (S)		e			
Snow Mountain Plw. (M)		e			
Summit Lake Pillow (T)	4/27	--	53.0	--	--
Summit Lake Pillow (S)	4/27	130	60.6	51.5	40.6
Summit Lake Pillow (M)	4/27	--	48.7	--	--
Tamarack (DISC. 82)			0.5a		
Tangent	5/2	59	28.8	28.1	14.7
Three Creek Butte	4/29	4	1.5	7.6	2.4
Three Creek Meadows	4/29	45	20.4	23.6	13.9
Three Creek Mdw. Plw. (T)	4/29	--	26.2	--	--
Three Creek Mdw. Plw. (S)	4/29	65	27.8	28.9	--
Three Creek Mdw. Plw. (M)	4/29	--	24.6	--	--
Whitewater Meadow *	4/28	0	0.0	0.0	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c

HOOD, MILE CREEKS LOWER DESCHUTES WATERSHEDS AREA 6					
Brooks Meadow	4/28	10	4.2	--	--
Clear Lake	4/28	0	0.0	5.6	7.3
Clear Lake Pillow (T)	4/28	--	3.7	11.2	--
Clear Lake Pillow (S)	4/28	13	5.3	16.2	--
Clear Lake Pillow (M)	4/28	--	6.5	16.1	--
Clear Lake Expt.	4/28	4	2.0	10.4	11.4b
Greenpoint		e			
Greenpoint Pillow (T)	5/1	--	0.0	3.2	--
Greenpoint Pillow (S)		e			
Greenpoint Pillow (M)		e			
Mt. Hood Test Site (T)	5/1	--	65.3	--	68.3
Mt. Hood Test Site (S)	No Report			84.0	72.2b
Mt. Hood Test Site (M)	No Report			86.0	--
Mud Ridge Pillow (T)	No Report		--	--	--
Mud Ridge Pillow (S)	4/28	32	13.5	32.2	26.4
Mud Ridge Pillow (M)	No Report				
Red Hill		e			
Red Hill Pillow (T)	5/1	--	37.5	66.4	--
Red Hill Pillow (S)		e			
Red Hill Pillow (M)		e			
Switchback (DISC. 82)			0.0a		
Tilly Jane (DISC. 82)			35.0a		
LOWER COLUMBIA WATERSHED AREA 7					
Blazed Alder Pillow (T)	5/1	--	9.2	--	--
Blazed Alder Pillow (S)	No Report			36.9	--
Blazed Alder Pillow (M)	No Report			38.8	--
Mt. Hood Test Site (T)	5/1	--	65.3	--	68.3b
Mt. Hood Test Site (S)	No Report			84.0	72.2b
Mt. Hood Test Site (M)	No Report			86.0	--
Mud Ridge Pillow (T)	No Report			--	--
Mud Ridge Pillow (S)	4/28	32	13.5	32.2	26.4
Mud Ridge Pillow (M)	No Report			--	--
North Fork Res. (T)	5/1	--	0.4	--	--
North Fork Res. (S)	No Report			2.14	--
North Fork Res. (M)	No Report			19.7	--
WILLAMETTE WATERSHEDS AREA 8					
Cascade Summit	4/29	67	31.2	36.5	27.4
Cascade Summit Plw. (T)	4/29	--	36.9	--	--
Cascade Summit Plw. (S)	4/29	80	36.3	43.2	--
Cascade Summit Plw. (M)	4/29	--	35.1	44.0	--
Champion (DISC. 82)			9.6a		
Clackamas Lake		e			
Clackamas Lake Plw. (T)	5/1	--	0.0	0.8	--
Clackamas Lake Plw. (S)		e			
Clackamas Lake Plw. (M)		e			
Clear Lake	4/28	0	0.0	5.6	7.3
Clear Lake Plw. (T)	4/28	--	3.7	16.2	--
Clear Lake Plw. (S)	4/28	13	5.3	16.2	--
Clear Lake Plw. (M)	4/28	--	6.5	16.1	--
Clear Lake Expt.	4/28	4	2.0	10.4	11.4b

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c

WILLAMETTE WATERSHEDS (CONTINUED)					
Daly Lake Plw. (T)	5/1	--	0.6	--	--
Daly Lake Plw. (S)		e			
Daly Lake Plw. (M)		e			
Dead Horse Grade	5/1	0	0.0	13.7	14.0
Golden Curry Creek(DISC.82)			0.0a	0.0	1.3
Hogg Pass	4/27	86	35.9	51.1	42.4
Hogg Pass Pillow (T)	No Report			--	--
Hogg Pass Pillow (S)	4/27	92	42.8	51.2	--
Hogg Pass Pillow (M)	No Report			--	--
Holland Meadows Plw. (T)	4/29		27.7	30.2	--
Holland Meadows Plw. (S)		e			
Holland Meadows Plw. (M)		e			
Jump Off Joe Pillow (T)	4/27	--	0.0	10.1	--
Jump Off Joe Pillow (S)	4/27	0	0.0	10.0	--
Jump Off Joe Pillow (M)	4/27	--	0.0	9.6	--
Little Meadows Plw. (T)	5/1	--	18.0	--	--
Little Meadows Plw. (S)		e			
Little Meadows Plw. (M)		e			
Lost Creek Ranch (DISC.82)			0.0a		
Marion Forks	4/27	0	0.0	12.3	7.2
Marion Forks Pillow (T)	No Report			11.8	--
Marion Forks Pillow (S)	4/27	0	0.0	12.5	--
Marion Forks Pillow (M)	4/27	--	0.0	--	--
Marys Peak		e			
McCredie Springs (DISC.82)			0.0a		
McKenzie	5/2	76	37.5	59.0	48.1
McKenzie Pillow (T)	5/2	--	33.2	57.3	--
McKenzie Pillow (S)	5/2	70	33.7	55.3	--
McKenzie Pillow (M)	5/2	--	33.1	55.4	--
Mt. Hood Test Site (T)	5/1	--	65.3	--	68.3b
Mt. Hood Test Site (S)	No Report			84.0	72.2b
Mt. Hood Test Site (M)	No Report			86.0	--
Peavine Ridge Pillow (T)	4/26	--	0.2	17.8	14.5b
Peavine Ridge Pillow (S)	4/26	1	0.6	16.8	--
Peavine Ridge Pillow (M)	No Report			15.8	--
Railroad Overpass	4/29	0	0.0	0.0	--
Railroad Overpass Plw. (T)	4/29	--	0.0	0.1	--
Railroad Overpass Plw. (S)	4/29	0	0.0	0.0	--
Railroad Overpass Plw. (M)	4/29	--	0.0	0.1	--
Roaring River Plw. (T)	5/1	--	28.7	40.9	--
Roaring River Plw. (S)		e			
Roaring River Plw. (M)		e			
Saddle Mtn. Pillow (T)	5/1	--	0.0	--	3.2b
Salt Creek Falls	4/29	4	1.4	15.7	12.9
Salt Creek Falls Plw. (T)	4/29	--	8.1	25.0	--
Salt Creek Falls Plw. (S)	4/29	32	13.8	24.0	--
Salt Creek Falls Plw. (M)	4/29	--	7.6	23.6	--
Santiam Junction	4/27	9	3.9	23.7	16.2
Santiam Junction Plw. (T)	4/27	--	8.1	--	--
Santiam Junction Plw. (S)	4/27	13	5.8	24.8	--
Santiam Junction Plw. (M)	4/27	--	7.6	--	--
Seine Creek Pillow (T)	5/1	--	0.5	1.5	--
Summit Lake Pillow (T)	4/27	--	53.0	--	--
Summit Lake Pillow (S)	4/27	130	60.6	51.5	40.6b
Summit Lake Pillow (M)	4/27	--	48.7	--	--
Timothy Lake	No Report			17.2	12.4b
Weaver Creek (DISC. 82)			0.0a		
White Branch Slide(DISC.82)			0.0a		
Whitewater Bridge(DISC.82)			0.0a		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
ROGUE, UMPQUA WATERSHEDS AREA 9					
Althouse #2		e			
Althouse #3		e			
Annie Springs (REV.)	5/1	148	71.1	--	--
Beaver Dam Creek	4/29	35	17.2	0.0	7.6b
Bigelow Camp Plw. (T)	5/1	--	34.8	15.4	--
Bigelow Camp Plw. (S)		e			
Bigelow Camp Plw. (M)		e			
Big Red Mtn (DISC.83)		e			
Big Red Mtn. Rev.		e			
Big Red Mtn. Plw. (T)	5/1	--	62.5	31.8	--
Big Red Mtn. Plw. (S)		e			
Big Red Mtn. Plw. (M)		e			
Billie Creek Divide	4/28	58	26.2	21.0	14.3
Billie Cr. Div. Plw. (T)	4/28	--	22.6	21.2	--
Billie Cr. Div. Plw. (S)	4/28	57	25.4	22.0	--
Billie Cr. Div. Plw. (M)	4/28	--	22.0	19.9	--
Caliban (Alternate)	4/27	132	57.8	46.2	--
Champion (DISC. 82)			9.6a		
Cold Spgs. Camp (DISC. 83)			52.0a		
Cold Springs Camp Rev.	4/28	113	53.0	45.0	35.7b
Cold Spgs. Camp Plw. (T)	4/28	--	45.8	--	--
Cold Spgs. Camp Plw. (S)	4/28	86	42.4	34.8	--
Cold Spgs. Camp Plw. (M)	4/28	--	44.6	37.1	--
Deadwood Junction	4/29	0	0.0	0.0	3.1b
Diamond-Crater Sum.(DISC.82)			48.3a		
Diamond Lake	4/28	51	22.0	22.4	18.2
Diamond Lake Plw. (T)	No Report				
Diamond Lake Plw. (S)	4/28	46	20.5	16.5	--
Diamond Lake Plw. (M)	No Report				
Fish Lake	4/28	25	10.6	9.3	7.9b
Fish Lake Pillow (T)	4/28	--	6.8	--	--
Fish Lake Pillow (S)	4/28	13	5.3	5.5	--
Fish Lake Pillow (M)	4/28	--	6.3	--	--
Fourmile Lake	4/28	85	41.2	28.1	21.9b
Fourmile Lake Plw. (T)	4/28	--	42.7	37.5	--
Fourmile Lake Plw. (S)	4/28	106	45.9	35.3	--
Fourmile Lake Plw. (M)	4/28	--	40.9	34.7	--
Grayback Peak		e			
Howard Prairie Reservoir	4/29	8	3.8	0.0	2.6b
Hyatt Prairie Reservoir	No Report			0.1	3.4b
Hyatt Prairie Res. Plw. (T)	4/29	--	10.9	0.5	--
Hyatt Prairie Res. Plw. (S)	4/29	28	12.2	0.0	--
Hyatt Prairie Res. Plw. (M)	4/29	--	10.7	--	--
King Mountain #1	4/28	8	3.5	7.2	6.2b
King Mountain #2	4/28	0	0.0	2.0	3.1b
King Mountain #2 Plw. (T)	4/28	--	0.0	1.8	--
King Mountain #2 Plw. (S)	4/28	0	0.0	2.9	--
King Mountain #2 Plw. (M)	4/28	--	0.0	1.6	--
King Mountain #3	4/28	0	0.0	0.0	--
King Mountain #4	4/28	0	0.0	0.0	--
King Mountain #5	4/28	0	0.0	0.0	--
King Mountain #6	4/28	0	0.0	0.0	--
Mt. Ashland Switchback	4/27	142	61.0	40.0	37.1b
Mule Creek	4/28	0	0.0	6.5	2.8b
North Umpqua	4/29	5	2.1	9.1	7.3
Page Mountain		e			
Park Headquarters (REV.)	5/1	199	98.9	--	--
Red Butte #1	4/25	13	5.6	9.7	13.8
Red Butte #2	4/25	0	0.0	8.8	5.5
Red Butte #3	4/25	0	0.0	0.0	1.0
Red Butte #4	4/25	0	0.0	0.0	--
Red Butte #5	4/25	0	0.0	0.0	--
Red Butte #6	4/25	0	0.0	0.0	--
Seven Mile	4/27	114	52.5	--	--
Seven Mile Pillow (T)	No Report			42.0	--
Seven Mile Pillow (S)	4/27	105	49.0	--	--
Seven Mile Pillow (M)	No Report				
Silver Burn	No Report			0.0	3.5
Siskiyou Summit		e			
Ski Bowl Road	4/27	124	54.6	31.6	26.0b
South Fork Canal	4/29	0	0.0	0.0	--
Trap Creek	4/27	TR	0.1	8.3	5.8

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
KLAMATH WATERSHEDS AREA 10					
Annie Springs (REV.)	5/1	148	71.1	--	--
Billie Creek Divide	4/28	58	26.2	21.0	14.3
Billie Cr. Div. Plw. (T)	4/28	--	22.6	21.2	--
Billie Cr. Div. Plw. (S)	4/28	57	25.4	22.0	--
Billie Cr. Div. Plw. (M)	4/28	--	22.0	19.9	--
Chemult Alternate	4/28	21	9.2	0.2	1.8
Chemult Alternate Plw. (T)	4/28	--	5.4	--	--
Chemult Alternate Plw. (S)	4/28	17	6.5	0.0	--
Chemult Alternate Plw. (M)	4/28	--	4.0	0.0	--
Chiloquin (PP&L)		e			
Cold Spgs. Camp (DISC. 83)			52.0a		
Cold Springs Camp Rev.	4/28	113	53.0	45.0	35.7b
Cold Spgs. Camp Plw. (T)	4/28	--	45.8	--	--
Cold Spgs. Camp Plw. (S)	4/28	86	42.4	34.8	--
Cold Spgs. Camp Plw. (M)	4/28	--	44.6	37.1	--
Crazyman Flat *	4/27	36	14.6	13.0	5.9b
Crowder Flat (Calif.) *		e			
Crystal (PP&L)		e			
Diamond-Crater Sum.(DISC.82)			48.3a		
Dog Hollow *		e			
Finley Corrals *	4/27	73	30.7	13.4	8.8b
Fort Klamath (PP&L)		e			
Fourmile Lake	4/28	85	41.2	28.1	21.9b
Fourmile Lake Plw. (T)	4/28	--	42.7	37.5	--
Fourmile Lake Plw. (S)	4/28	106	45.9	35.3	--
Fourmile Lake Plw. (M)	4/28	--	40.9	34.7	--
Gerber		e			
Harriman (PP&L)		e			
Howard Prairie Reservoir	4/29	8	3.8	0.0	2.6b
Hyatt Prairie Reservoir		No Report		0.1	3.4b
Hyatt Prairie Res. Plw. (T)	4/29	--	10.9	0.5	--
Hyatt Prairie Res. Plw. (S)	4/29	28	12.2	0.0	--
Hyatt Prairie Res. Plw. (M)	4/29	--	10.7	--	--
Park Headquarters (REV.)	5/1	199	98.9	--	--
Quartz Mountain	4/26	10	3.2	0.0	1.0
Quartz Mtn. Pillow (T)	4/26	--	9.9	0.3	--
Quartz Mtn. Pillow (S)	4/26	24	8.8	0.0	--
Quartz Mtn. Pillow (M)	4/26	--	10.5	0.0	--
Seven Mile	4/27	114	52.5	--	--
Seven Mile Pillow (T)		No Report		42.0	--
Seven Mile Pillow (S)	4/27	105	49.0	--	--
Seven Mile Pillow (M)		No Report			
State Line (Calif.) *		e			
Strawberry	4/28	26	10.3	1.7	2.4
Strawberry Pillow (T)	4/28	--	8.6	0.7	--
Strawberry Pillow (S)	4/28	20	7.3	0.1	--
Strawberry Pillow (M)	4/28	--	8.7	0.4	--
Summer Rim *	4/27	66	27.7	24.0	14.5b
Summer Rim		e			
Summer Rim Pillow (T)	5/1	--	38.9	--	--
Summer Rim Pillow (S)		e			
Summer Rim Pillow (M)		e			
Sycan Flat *		e			
Taylor Butte	4/28	2	0.8	0.8	0.6b
Taylor Butte Pillow (T)	4/28	--	0.0	0.6	--
Taylor Butte Pillow (S)	4/28	0	0.0	0.0	--
Taylor Butte Pillow (M)	4/28	--	0.0	0.1	--
Annie Spring (DISC. 83)			72.4	60.6	45.8
Park Headquarters (DISC. 83)			98.3	86.1	63.7

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
LAKE COUNTY, GOOSE LAKE WATERSHEDS AREA 11					
Adin Mountain (Calif.)	4/28	52	23.9	11.1	7.3
Bald Mountain (Nev.)		e			
Barley Camp *		e			
Bear Flat Meadow *		e			
Camas Creek #1	4/26	36	14.5	4.7	3.1
Camas Creek #2	4/26	48	19.3	8.2	--
Cedar Pass (Calif.)		e			
Colvin Creek *		e			
Cox Flat *		e			
Crowder Flat (Calif.)		e			
Dismal Swamp (Calif.) *		e			
Dismal Swamp #2 Plw. (T)		--		--	--
Dismal Swamp #2 Plw. (S)		e			
Dismal Swamp #2 Plw. (M)		e			
Finley Corrals *	4/27	73	30.7	13.4	8.8b
Hart Mountain *		e			
Little Bally Mtn. (Nev.)		e			
Mtn. Bidwell (Calif.)		e			
North Star (Calif.)		e			
Patton Meadows *	4/27	75	31.5	24.5	13.8b
Quartz Mountain	4/26	10	3.2	0.0	1.0
Quartz Mountain Plw. (T)	4/26	--	9.9	0.3	--
Quartz Mountain Plw. (S)	4/26	24	8.8	0.0	--
Quartz Mountain Plw. (M)	4/26	--	10.5	0.0	--
Reservation Creek (Calif.)		e			
Rogger Meadows *		e			
Sherman Valley *		e			
Silver Creek		e			
Silver Creek Plw. (T)	4/30	--	18.0	4.0	--
Silver Creek Plw. (S)		e			
Silver Creek Plw. (M)		e			
State Line (Calif.) *		e			
Strawberry	4/28	26	10.3	1.7	2.4
Strawberry Plw (T)	4/28	--	8.6	0.2	--
Strawberry Plw (S)	4/28	20	7.3	0.1	--
Strawberry Plw (M)	4/28	--	8.7	0.4	--
Summer Rim *	4/27	66	27.7	24.0	14.5b
Summer Rim		e			
Summer Rim Plw. (T)	5/1	--	38.9	7.3	--
Summer Rim Plw. (S)		e			
Summer Rim Plw. (M)		e			
Sycan Flat *		e			

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
HARNEY BASIN WATERSHEDS AREA 12					
Blue Mountain Springs	4/28	47	20.6	20.4	11.1
Blue Mtn. Spgs. Plw. (T)	No Report				
Blue Mtn. Spgs. Plw. (S)	4/28	46	18.9	23.5	6.8b
Blue Mtn. Spgs. Plw. (M)	4/28	--	22.2	24.4	9.0b
Buck Pasture *		e			
Buckskin Lake *		e			
Call Meadows *		e			
Delintment Lake (DISC.82)			8.0a		
Disaster Peak (Nev.)		e			
Emigrant Butte (DISC. 82)			0.3a		
Fish Creek (Rev.)		e			
Fish Creek Plw. (T)	5/1	--	54.3	19.2	--
Fish Creek Plw. (S)		e			
Fish Creek Plw. (M)		e			
Government Corrals		e			
Hart Mountain *		e			
Idlewild Camp Alt(DISC.82)			0.0a		
Izee Summit (DISC. 82)			2.2a		
Lake Creek R.S.	4/28	15	7.1	--	--
Lake Creek R.S. Plw. (T)	4/28	--	9.9	6.8	3.4b
Lake Creek R.S. Plw. (S)	4/28	17	7.8	8.7	--
Lake Creek R.S. Plw. (M)	4/28	--	9.1	8.5	--
Oregon Canyon *		e			
Pueblo Summit *		e			
Rock Springs	4/29	0	0.0	0.0	0.6
Rock Springs Plw. (T)	4/29	--	0.0	0.1	--
Rock Springs Plw. (S)	4/29	0	0.0	0.0	--
Rock Springs Plw. (M)	4/29	--	0.0	0.1	--
Silvies		e			
Silvies Pillow (T)	No Report				
Silvies Pillow (S)		e			
Silvies Pillow (M)		e			
Snow Mountain (DISC.82)			18.0a		
Snow Mountain Plw. (T)	5/1	--	22.9	--	--
Snow Mountain Plw. (S)		e			
Snow Mountain Plw. (M)		e			
Starr Ridge	4/29	3	1.0	1.6	1.2
Starr Ridge Pillow (T)	4/29	--	0.0	0.0	--
Starr Ridge Pillow (S)	4/29	0	0.0	0.0	--
Starr Ridge Pillow (M)	4/29	--	0.0	0.0	--
Stinking Water	5/1	0	0.0	0.0	--
Trout Creek *	5/3	55	24.8	--	--
"V" Lake *		e			

* Aerial
 TR = Trace
 T = Telemetry Measurement
 S = Snow Tube Measurement
 M = Manometer Measurement
 (DISC. ##) = SNow Course
 manual measurement discontinued
 in year shown-estimates to be
 amde for 5 years.

BASIC DATA SUPPLEMENT 2

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Arbuckle Mountain (Morrow County)	5400	From 3/28 To 4/28	10.59"		
Beaver Reservoir (Union County)	51.50	From 3/30 To 4/27	2.42"		
Blue Mountain Springs (Grant County)	5900	From 3/28 To 4/28	3.00"		
Bourne (Baker County)	5800	From 3/28 To 4/27	3.12"		
Bowman Springs (Union County)	4580	From 3/28 To 4/27	0.72"		
Cascade Summit (Lane County)	4880	From 3/29 To 4/29	7.98"		
Chemult (Klamath County)	4760	From 4/1 To 4/28	0.60"		
Clear Lake (Wasco County)	3500	From 3/30 To 4/28	1.92"		
Cold Springs (Klamath County)	6100	From 4/4 To 4/28	2.04"		
County Line (Umatilla County)	4800	From 3/28 To 4/27	2.88"		
Diamond Lake (Douglas County)	4600	From 3/30 To 4/28	3.48"		
Eilertson Meadows (Baker County)	5400	From 3/28 To 4/27	2.16"		
Emigrant Springs (Umatilla County)	3925	From 3/28 To 4/27	3.60"		
Fish Lake (Jackson County)	4665	From 4/1 To 4/28	3.48"		
Fourmile Lake (Klamath County)	6000	From 4/4 To 4/28	2.04"		
Gold Center (Grant County)	5340	From 3/28 To 4/27	2.40"		
High Ridge (Umatilla County)	4150	From 3/30 To 5/2	4.44"		
Hogg Pass (Jefferson County)	4755	From 3/3 To 4/27	4.80"		
Hyatt Prairie (Jackson County)	4900	From 3/31 To 4/29	3.48"		
Irish-Taylor (Deschutes County)	5500	From 3/30 To 4/28	4.92"		
Jump Off Joe (Linn County)	3400	From 3/30 To 4/27	6.72"		
King Mountain #2 (Douglas County)	4500	From 3/29 To 4/28	9.00"		

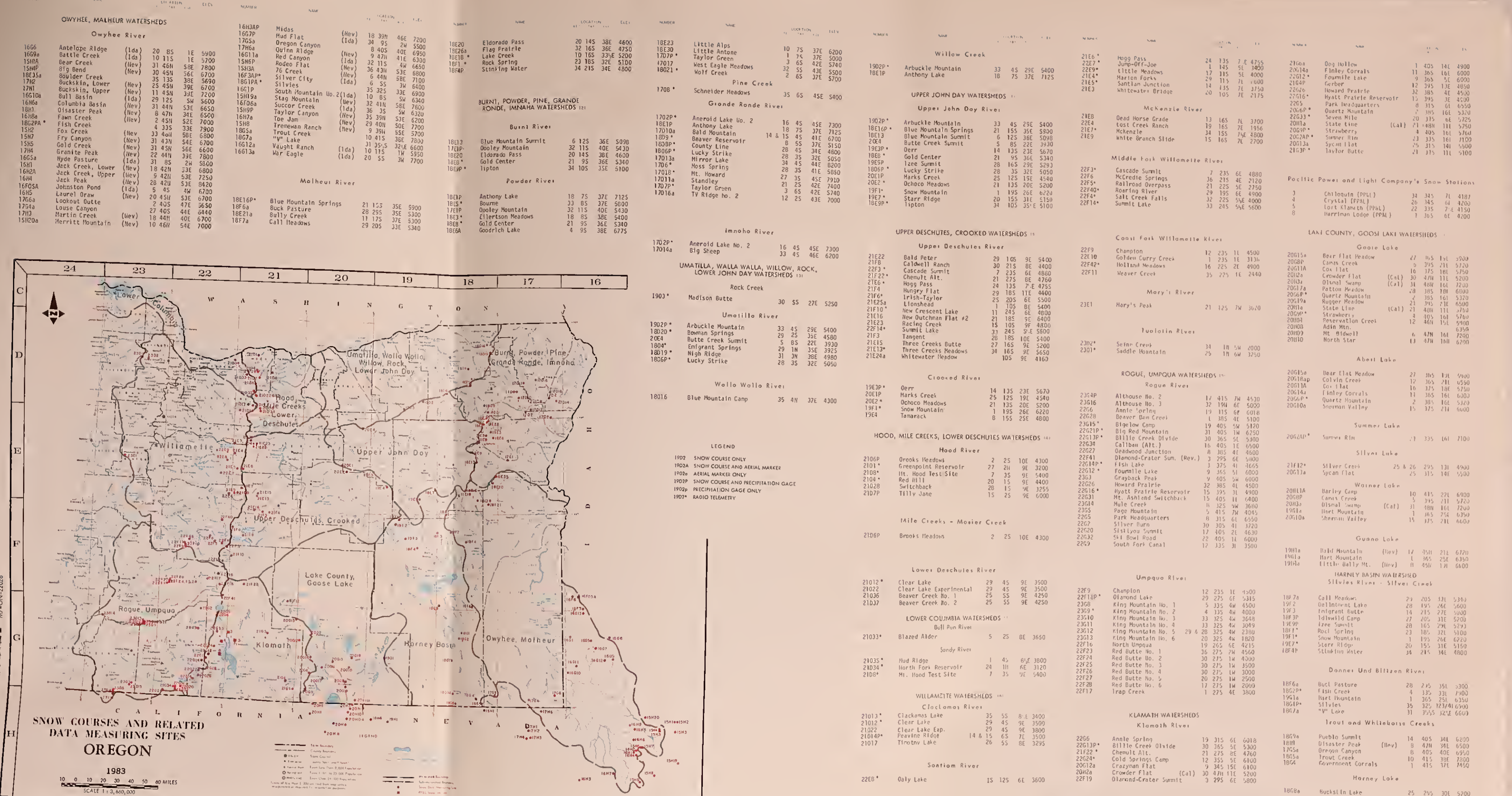
(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Lake Creek (Grant County)	5120	From 3/28 To 4/28	2.16"		
Madison Butte (Morrow County)	5250	From 3/28 To 4/27	2.13"		
Marion Forks (Linn County)	2730	From 3/30 To 4/27	8.16"		
McKenzie (Lane County)	5000	From 4/4 To 5/2	2.52"		
Moss Springs (Union County)	5850	From 3/28 To 4/26	4.80"		
Mt. Howard (Wallowa County)	7910	From 3/28 To 4/26	5.88"		
Mud Ridge (Clackamas County)	4050	From 3/30 To 4/28	3.48"		
New Crescent Lake (Klamath County)	4800	From 3/29 To 4/27	1.68"		
Quartz Mountain (Lake County)	6300	From 3/28 To 4/26	3.12"		
Railroad Overpass (Lane County)	2750	From 3/29 To 4/29	6.72		
Rock Springs (Grant County)	5100	From 3/31 To 4/29	1.08"		
Salt Creek Falls (Lane County)	4000	From 3/29 To 4/29	8.28"		
Santiam Junction (Lane County)	3750	From 3/30 To 4/27	1.20"		
Schneider Meadows (Baker County)	5400	From 3/29 To 4/26	4.32"		
Seven Mile (Klamath County)	5725	From 2/23 To 4/29	11.04"		
Starr Ridge (Grant County)	5156	From 3/30 To 4/29	2.28"		
Strawberry (Lake County)	5760	From 4/4 To 4/28	1.08"		
Summit Lake (Klamath County)	5600	From 3/29 To 4/27	8.78		
Taylor Green (Baker County)	5740	From 3/28 To 4/26	4.08"		
Three Creek Meadows (Deschutes County)	5650	From 3/30 To 4/29	2.40"		
Tipton (Baker County)	5100	From 3/28 To 4/27	1.80"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

Map and Index to OREGON SNOW COURSES

The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon State University
Oregon Department of Water Resources
Soil and Water Conservation Districts of Oregon

COUNTY

Douglas County Water Resources Survey

FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Army
Corps of Engineers
Department of Commerce
NOAA, National Weather Service
Department of Energy
Bonneville Power Administration
Department of the Interior
Bureau of Land Management
Fish and Wildlife Service
Geological Survey
Bureau of Reclamation

PUBLIC UTILITIES

Pacific Power and Light Company
Portland General Electric Company
California-Pacific National

MUNICIPALITIES

City of Baker
City of La Grande
City of Portland
City of The Dalles
City of Walla Walla

IRRIGATION DISTRICTS

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Associated Ditch Companies
Burnt River Irrigation District
Central Oregon Irrigation District
East Fork Irrigation District
Grants Pass Irrigation District
Hood River Irrigation District
Jordan Valley Irrigation District
Juniper Flat Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Middle Fork Irrigation District
North Board of Control - Owyhee Project
Ochoco Irrigation District
Rogue River Valley Irrigation District
South Board of Control - Owyhee Project
Squaw Creek Irrigation District
Talent Irrigation District
Tumalo Project
Vale - Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

The Crag Rats, Hood River, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
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